

competitive LECs acquire a larger share of the local exchange market, their investment may become a significant share of the total investment in the public switched network. In that event, embedded cost data will increasingly understate total net investment, and any model that relies on average embedded cost in each state can become less reliable. When reported investment decreases to 70 or 80 percent of the total network, this model may need to be replaced, possibly by a bidding process.⁴³

The model also includes, in Step 4, a hold-harmless calculation. Because of the methods that the FCC has used in the past to distribute federal support, this hold-harmless guarantee is primarily of benefit to smaller incumbent LECs. Many of these companies are rural telephone companies and are entitled to separate treatment under applicable FCC orders. To date, the FCC has not indicated any clear intent to reduce substantially the support for these companies and has left this question to subsequent rulemaking.⁴⁴ Nevertheless, after the passage of several years, policy makers might attach reduced importance to sustaining the hold-harmless expectation indefinitely.

The telecommunications market itself may also evolve in unexpected ways. This could invalidate some of the assumptions underlying the FCC's current policy on high cost areas and could equally invalidate the assumptions underlying this model. For example, the FCC requires that high cost support be calculated on a fine geographic basis no larger than the wire center.⁴⁵ This presupposes that competitive LECs will be free in each state to offer their service areas on a fine geographic scale and also presupposes that resale rates will be de-averaged at a similar scale. As states implement the Telecom Act over the next several years,

⁴³ The model bases support distributions for some states on the difference between the state's embedded average cost and the national average cost. Therefore, to the extent that a particular data error applies equally to all states, it could have a negligible effect on the distribution. However, at some time in the future, facilities-based competitive LECs may have so many lines that the embedded cost per line data from incumbent LECs will no longer represent a fair sample of the lines in the state. At that time the reported embedded investment would no longer be a reliable indicator of cost.

⁴⁴ The FCC has stated an intention to establish a forward-looking economic cost mechanism for rural carriers. Universal Service Order, ¶ 252. The FCC also has stated that it will not base distributions to rural carriers on forward-looking cost until further review. *Id.* at ¶ 203. However, the FCC has also stated that it intends to pay only 25 percent of the cost of support, *Id.* at ¶ 269, and this presumably applies to both rural and non-rural carriers.

⁴⁵ Universal Service Order, ¶ 250(10).

those assumptions may not prove accurate. In that event, it may be appropriate to calculate forward-looking support on a different geographic scale.⁴⁶

Based upon these considerations, the FCC may want to reexamine this model after it has been in place approximately four years. It may be appropriate to make major changes to the model at that time or even to develop an entirely new model.

V. Benefits

If implemented, the proposed plan would achieve several benefits.

1. Benefit to state jurisdictions maximized.

Under the May 8 order, high cost support would be used to reduce interstate access charges. Therefore, the immediate beneficiaries of the FCC's program would be interstate service providers who might then choose to pass these cost reductions along in the form of rate reductions. If rates were reduced, benefits would not necessarily flow to the states from which the contributions came, but, under the Telecom Act,⁴⁷ would produce nationwide toll rate decreases.

Under this alternative plan, while the benefits vary from one state to another, all of the money produced would be used by state commissions to reduce intrastate rates. This is consistent with the purpose of the present high cost funding program and with the Act's requirement to achieve "reasonably comparable rates."

2. Cost minimized.

The total cost at Step 5 of the Proposal, using the Blended Cost Model, is estimated at \$1.57 billion. This is an increase from the current total support (high cost and DEM weighting) of slightly less than \$1 billion.

This proposal will actually impose a smaller financial burden on interstate revenues than the FCC's current plan. It is estimated that the cost of implementing the FCC's plan for high cost funding alone (as per the May 8 order) would be \$1.96 billion, again assuming the Blended Cost Model.

This plan also requires considerably less support than that calculated by the leading forward-looking cost models. Those models calculate support on a wire-center-by-wire-center

⁴⁶ Alternatively, competitive LECs may be able to identify low-cost and high profit customers within a wire center and avoid serving other higher cost or lower volume customers. In that event, even more geographically precise measurements of cost may be necessary.

⁴⁷ 47 U.S.C. §254(g).

basis (or smaller). The size of the fund is determined by adding together the difference between the cost of providing service in each wire center and a national benchmark of \$31 for residential lines and \$51 for business lines. The Blended Cost Model predicts a national fund of \$7.8 billion if all costs must be paid by federal high cost support.⁴⁸

3. Intrastate revenues unaffected.

This proposal would be financed by a surcharge on the interstate revenues of interstate carriers. Intrastate revenues would not be affected.

4. Sufficiency.

Assuming that the national average cost is "reasonably comparable" to urban costs, this proposal, in conjunction with state-raised funds, would be sufficient to ensure that all rural areas have intrastate rates no higher than those "reasonably comparable" to urban areas.

5. Benefits flow to all rural areas.

This plan treats all rural customers equally and thereby contributes to competitive neutrality. The size of a carrier (e.g., more than 50,000 lines or more than 200,000 lines) is not considered in the calculation. By contrast, the FCC's plan differentiates between rural customers served by "rural carriers" and rural customers served by "non-rural carriers."

6. State jurisdiction protected.

There would be no requirement that states take any particular action in setting intrastate rates. States would, however, be jointly responsible with the FCC for ensuring that the universal service mandates of the Telecom Act are fulfilled.

7. State discretion.

State commissions would need to develop a mechanism to distribute high cost support. While this is an added burden on states, it is one that would likely fall on states in any case if the existing FCC order were implemented. Several states already have high cost support mechanisms in place.

⁴⁸ The difference between the amount of support provided in this proposal and that provided on a wire center model is approximately equal to the amount of the existing implicit subsidies in a study area. Under the plan proposed here, states would be responsible for funding any implicit subsidies they choose to make explicit through their state universal service funds.

States would have some discretion, within the constraints of the Telecom Act, to apply federal support where it is needed. This will allow states to replace implicit subsidies within the rate structure gradually as competition increases the need for or risk of rate deaveraging in high cost areas. It will also allow states to establish articulated policies that interrelate high cost support with other elements of competition, such as service area size. In particular, states could decide whether to reduce toll charges or dial tone charges. States could also allocate support among large companies and small companies.

8. Competitive neutrality.

Federal funds would be distributed to state commissions, and the federal distribution would therefore be competitively neutral. In distributing these funds, state commissions would also demonstrate, based on their plans approved by the FCC, that they would not establish a preference for a particular kind of carrier or technology.

9. Cost-based.

Support would be distributed based upon costs, both forward-looking and embedded.

10. Litigation risk minimized.

This proposal could eliminate the uncertainty arising from pending litigation in the Fifth Circuit of the United States Court of Appeals. In that court, at least one low-average-cost state is seeking to determine whether the FCC has authority to levy charges on the intrastate revenues of interstate carriers. In addition, at least one high-average-cost state is seeking a ruling on whether the FCC's May 8 order is sufficient to ensure that rates in rural and high cost areas will be reasonably comparable to rates in urban areas.

If the Court should rule in favor of the high-average-cost state that the FCC must provide all of the support calculated under a forward-looking cost model, the Blended Model would predict that the size of the federal fund might need to be \$7.8 billion, more than four times as large as the fund required here.

11. All states benefit.

As compared to the FCC plan, which would raise \$2 billion but provide no support to the intrastate jurisdiction, this plan benefits every state.⁴⁹ In several cases, the alternative plan

⁴⁹ The FCC's plan would also be likely to produce benefits to customers in all states in the form of national reductions in interstate toll rates. While this could be a substantial benefit to
(continued...)

would not increase support to a particular state; but the citizens in that state would make a smaller contribution to the federal fund than under the FCC plan.

F

(...continued)

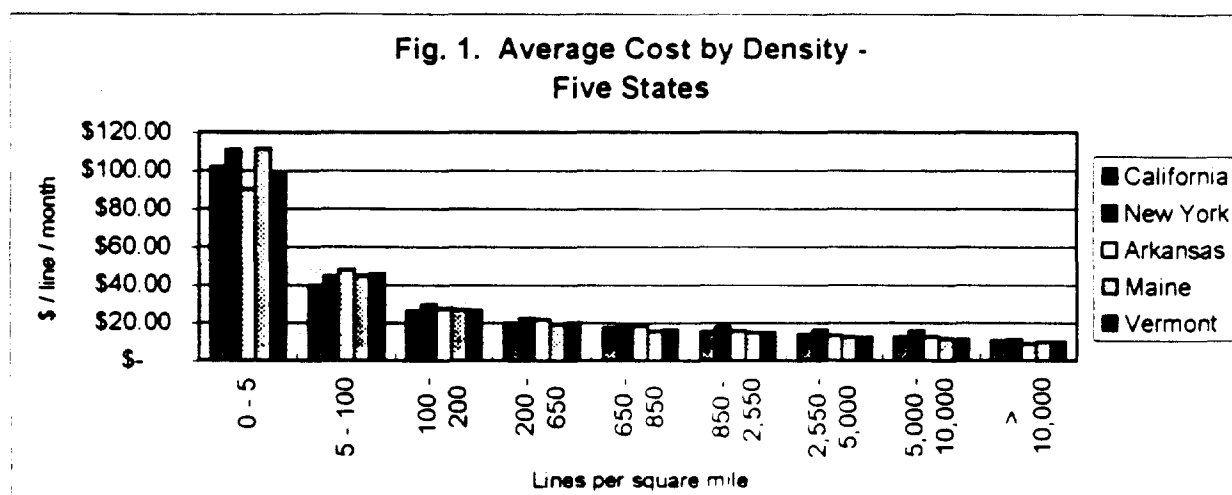
telephone customers in each state, the magnitude of such reductions is unknown.

This analysis assumes that the FCC plan would not give any support to the intrastate jurisdiction. The FCC's intentions on this question are not entirely clear, and several states have requested clarification on this point.

Appendix A - The Distribution of Costs

Two forward-looking cost models are under consideration by the FCC, the Hatfield model and the BCPM model. Each performs detailed cost analyses in small geographic areas. Each model then sorts these geographic areas into zones based upon the density of telephone lines per square mile. While it is not possible to blend the analyses of the two models, either model can be used to examine how density affects cost.⁵¹ The results clearly indicate that it is more expensive to provide telecommunications services in rural states than in more densely populated states.

Figure 1 shows, for five states, how forward-looking costs vary in the nine density zones used by the Hatfield model.⁵²



As Figure 1 illustrates, the Hatfield model predicts some cost variations from state to state, but comparatively larger variations from one density zone to another. For the most rural

⁵¹ As mentioned above, the Blended Cost Model was prepared because no cost model has yet been adopted by the FCC. The Blended Cost Model, however, is merely an averaging of state-by-state results of the two leading models, BCPM and Hatfield. The density zone analysis within the two models cannot be averaged, however, because they do not agree on the number of density zones and because they do not agree on the upper and lower bounds of the density zones.

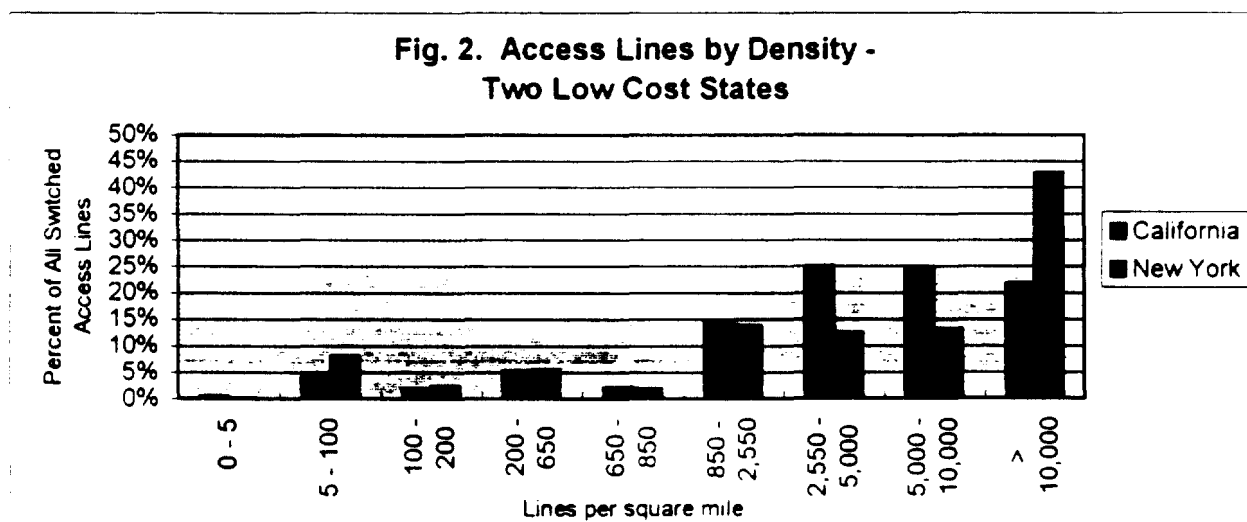
⁵² Seven zones are used in the BCPM analysis. While the precise numbers may vary, substituting the BCPM model for the Hatfield model produces similar results.

density zone (0 to 5 lines per square mile), costs are typically in the range of \$100 per line per month.⁵³ In the second density zone (5 to 100 lines per square mile), costs are in the range of \$40 to \$45 per line per month. Conversely, in the three density zones where density exceeds 2,550 lines per square mile, costs average \$12.77 per month.

There is little uniformity from state to state, however, with regard to demographics. Figures 2 and 3 show the percentage of access lines found within each density zone for the same five states represented in Figure 1.

The two more urban states, California and New York, are represented in Figure 2. In California, 72 percent of the state's access lines are located in the three highest density zones. The Hatfield study reports the average weighted cost in these three zones in California to be \$12.19 per line per month. In New York, 68 percent of the access lines are found in those same three densely populated zones with an average cost of \$12.89 per line per month.

The combination of few high-cost lines and many low-cost lines within an urban state inevitably produces a low statewide average cost. Average costs predicted by the Hatfield



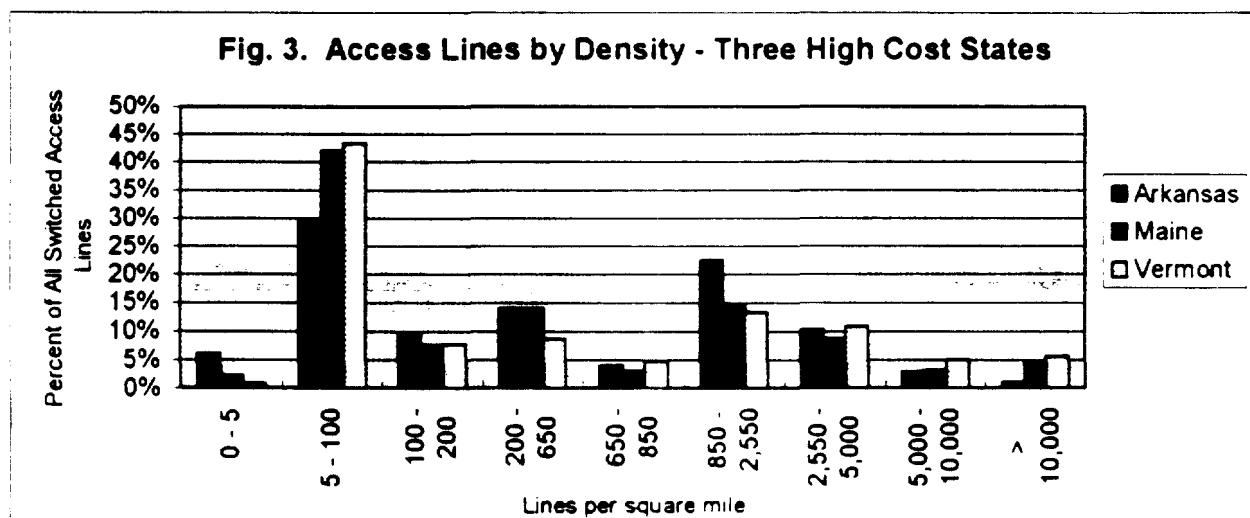
model are \$15.01 in California and \$17.21 in New York. These states have lower statewide average costs than the national average cost of \$20.52.

⁵³ The Hatfield Model data used here was derived from the model author's run using standard design parameters. The five states shown are representative of urban and rural states. Nevertheless, costs in some states were higher or lower than the amounts shown here, particularly in the lowest density zone, from 0 to 5 lines per square mile.

In rural states, settlement patterns are quite different. Figure 3 shows the corresponding data for Arkansas, Maine, and Vermont, three states that are more rural than either California or New York. The graph indicates that a greater percentage of access lines in these rural states are found in the lower density zones on the left side of the graph. Indeed, a significant portion of telephone customers in these states live in the second density zone (where density is between 5 to 100 lines per square mile). The characteristic cost within this density zone is approximately \$45 per line per month.⁵⁴

Figure 3 also shows that each of these three rural states has only a small proportion of its access lines located in the three highest density zones. Therefore these states have relatively few low-cost lines.

A state with a high percentage of its access lines in high cost areas generally will have a



high average cost. Average costs predicted by the Hatfield model are \$31.43 in Arkansas, \$30.42 in Maine, and \$29.45 in Vermont. The statewide average in all three states is about \$10 higher than the national average cost.

Since a high proportion of access lines in these rural states are in low-density and high-cost areas, these states may also have a higher proportion of customers at risk from any rate

⁵⁴ Each of the three states also shows increased population in the fifth density zone. This presumably results from the effects of small cities, like Little Rock, Portland, and Burlington. The cost characteristic of this density zone is about \$15 per month.

deaveraging that might follow local exchange competition. While density is not the only determinant of high cost, this analysis demonstrates that some rural states have a high proportion of their access lines in high cost areas. These areas would be particularly vulnerable to rate increases, and the ensuing loss of customer penetration, if funding for high cost support is insufficient.

Appendix B - Sources of Embedded Cost Data

Embedded data were derived from the following sources.

(a) Loop Cost.

This was set equal to the 1996 unseparated NTS revenue requirement⁵⁵ of all carriers, as reported to the FCC and as further reported in the 1997 Monitoring Report prepared by the Docket 80-286 Joint Board staff.

(b) Switching Cost.

(i) For Cost Companies - Data were extracted from the same NECA filing that was used for the loop studies. Contained in this data is Account 2210, Central Office Equipment (COE) Switching Investment which was used to determine Cat 2 (Tandem) and Cat 3 (Local Switching) by cost company study area. Using ARMIS 4304 data, GSF factors were calculated to supplement the COE data. Generic "small company" factors were developed using the average of all Tier 1 LECs excluding the RBOCs. Individual factors were developed at the study area level for the Tier 1 LECs. The revenue requirements were divided by USF \$ loops to obtain a Switching Revenue Requirements/Loop, by study area.

(ii) For Average Schedule Companies - The data of weighted DEM support amounts by study area was obtained from a filing with USAC. This data was generated by multiplying the COE revenue requirements by a set of factors based upon line size and minutes of use per line. The factors used are a part of the USAC filing, so by reversing the process, the COE revenue requirements were obtained. Using the "small company" GSF factors developed above, the GSF amounts were added to the direct cost. The revenue requirements were divided by USF loops to obtain a Switching Revenue Requirement/Loop, by study area.

(c) Trunking Cost.

Total Cable & Wire (C&W) Investments and expenses and Total COE Transmission Investments and expenses by cost company were extracted from the NECA data. Using ARMIS data, a factor was developed for message trunk investment to total investment for both COE - Transmission and C&W. This factor approximates the effect of the removal of loop investment (both message and private line), and private line trunk investment. The ratio is unique for each Tier 1 study area. Study area trunking revenue requirements were then developed. The revenue requirements were divided by USF loops to obtain a Trunking Revenue Requirement/Loop, by study area.

⁵⁵ 47 CFR Part 36 § 36.621

**High Cost Modeling Project
Federal Support to Intrastate Jurisdiction
Block Grant to State - Part 1 - Support Calculation**

1/10/98 17 02

Step 1: Calculate 75% of excess forward looking cost above stated threshold
Step 2: Calculate 75% of excess embedded cost above stated threshold.
Step 3: Calculate the lesser of results 1 and 2
Step 4: Calculate 1997 USF payments times stated protection level
Step 5: Federal support equals greater of results 3 and 4

	Federal Support to Intrastate Jurisdiction										Result: Support for State Determined by which Formula?
	Step 1: Calculate Forward- Looking Support		Step 2: Calculate Embedded Cost Support		Step 3: Lesser of Steps 1 and 2		Step 4: Hold Harmless		Step 5: Greater of Steps 3 & 4		
	Threshold= 100% or = \$ 28.12		Threshold= 105% or = \$ 35.58				Protection Level = 100%				
	per line per mo.	Annual Total	per line per mo.	Annual Total	per line per mo.	Annual Total	per line per mo.	Annual Total	per line per mo.	Annual Total	
	(\$ / l / mo)	(\$ millions)	(\$ / l / mo)	(\$ millions)	(\$ / l / mo)	(\$ millions)	(\$ / l / mo)	(\$ millions)	(\$ / l / mo)	(\$ millions)	
Alabama	\$ 6.98	\$ 188	\$ 0.49	\$ 13	\$ 0.49	\$ 13	\$ 1.11	\$ 30	\$ 1.11	\$ 30	Hold-Harmless
Arizona	\$ 0.56	\$ 16	\$ 0.79	\$ 23	\$ 0.56	\$ 16	\$ 0.71	\$ 21	\$ 0.71	\$ 21	Hold-Harmless
Arkansas	\$ 10.50	\$ 161	\$ 6.29	\$ 96	\$ 6.29	\$ 96	\$ 3.26	\$ 50	\$ 6.29	\$ 96	Embedded
California	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.16	\$ 38	\$ 0.16	\$ 38	Hold-Harmless
Colorado	\$ 1.16	\$ 33	\$ 3.29	\$ 94	\$ 1.16	\$ 33	\$ 0.91	\$ 26	\$ 1.16	\$ 33	Forward-Looking
Connecticut	\$ -	\$ -	\$ 0.63	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Hold-Harmless Forward-Looking
Delaware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
District of Columbia	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Florida	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.25	\$ 28	\$ 0.25	\$ 28	
Georgia	\$ 2.27	\$ 116	\$ 2.77	\$ 141	\$ 2.27	\$ 116	\$ 0.81	\$ 41	\$ 2.27	\$ 116	
Hawaii	\$ -	\$ -	\$ 4.03	\$ 33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Embedded Hold-Harmless Hold-Harmless Hold-Harmless
Idaho	\$ 9.92	\$ 75	\$ 3.54	\$ 27	\$ 3.54	\$ 27	\$ 3.12	\$ 24	\$ 3.54	\$ 27	
Illinois	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.08	\$ 7	\$ 0.08	\$ 7	
Indiana	\$ 1.54	\$ 60	\$ -	\$ -	\$ -	\$ -	\$ 0.14	\$ 5	\$ 0.14	\$ 5	
Iowa	\$ 7.50	\$ 138	\$ -	\$ -	\$ -	\$ -	\$ 0.21	\$ 4	\$ 0.21	\$ 4	
Kansas	\$ 6.87	\$ 121	\$ 3.31	\$ 58	\$ 3.31	\$ 58	\$ 2.34	\$ 41	\$ 3.31	\$ 58	Embedded
Kentucky	\$ 7.31	\$ 171	\$ 3.04	\$ 71	\$ 3.04	\$ 71	\$ 0.53	\$ 12	\$ 3.04	\$ 71	Embedded
Louisiana	\$ 2.36	\$ 65	\$ 3.12	\$ 86	\$ 2.36	\$ 65	\$ 1.67	\$ 46	\$ 2.36	\$ 65	Forward-Looking
Maine	\$ 8.18	\$ 74	\$ 5.42	\$ 49	\$ 5.42	\$ 49	\$ 1.06	\$ 10	\$ 5.42	\$ 49	Embedded
Maryland	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Hold-Harmless Hold-Harmless Hold-Harmless Embedded Hold-Harmless
Massachusetts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.00	\$ 0	\$ 0.00	\$ 0	
Michigan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.28	\$ 20	\$ 0.28	\$ 20	
Minnesota	\$ 3.28	\$ 107	\$ -	\$ -	\$ -	\$ -	\$ 0.35	\$ 12	\$ 0.35	\$ 12	
Mississippi	\$ 10.26	\$ 153	\$ 7.00	\$ 105	\$ 7.00	\$ 105	\$ 1.19	\$ 18	\$ 7.00	\$ 105	
Missouri	\$ 3.37	\$ 123	\$ 0.65	\$ 24	\$ 0.65	\$ 24	\$ 0.93	\$ 34	\$ 0.93	\$ 34	Hold-Harmless
Montana	\$ 19.25	\$ 111	\$ 7.89	\$ 45	\$ 7.89	\$ 45	\$ 4.21	\$ 24	\$ 7.89	\$ 45	Embedded
Nebraska	\$ 8.98	\$ 103	\$ 3.03	\$ 35	\$ 3.03	\$ 35	\$ 1.03	\$ 12	\$ 3.03	\$ 35	Embedded
Nevada	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.53	\$ 7	\$ 0.53	\$ 7	Hold-Harmless
New Hampshire	\$ 2.62	\$ 23	\$ 3.25	\$ 29	\$ 2.62	\$ 23	\$ 0.95	\$ 9	\$ 2.62	\$ 23	Forward-Looking
New Jersey	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.02	\$ 1	\$ 0.02	\$ 1	Hold-Harmless
New Mexico	\$ 8.57	\$ 86	\$ 5.12	\$ 52	\$ 5.12	\$ 52	\$ 2.60	\$ 26	\$ 5.12	\$ 52	Embedded
New York	\$ -	\$ -	\$ 1.49	\$ 214	\$ -	\$ -	\$ 0.15	\$ 22	\$ 0.15	\$ 22	Hold-Harmless
North Carolina	\$ 3.47	\$ 176	\$ 1.39	\$ 70	\$ 1.39	\$ 70	\$ 0.47	\$ 24	\$ 1.39	\$ 70	Embedded
North Dakota	\$ 18.34	\$ 91	\$ 2.42	\$ 12	\$ 2.42	\$ 12	\$ 1.83	\$ 9	\$ 2.42	\$ 12	Embedded
Ohio	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.06	\$ 5	\$ 0.06	\$ 5	Hold-Harmless
Oklahoma	\$ 6.52	\$ 140	\$ 1.98	\$ 43	\$ 1.98	\$ 43	\$ 1.68	\$ 36	\$ 1.98	\$ 43	Embedded
Oregon	\$ 3.52	\$ 78	\$ 1.54	\$ 34	\$ 1.54	\$ 34	\$ 0.93	\$ 21	\$ 1.54	\$ 34	Embedded
Pennsylvania	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.04	\$ 4	\$ 0.04	\$ 4	Hold-Harmless
Rhode Island	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Embedded Hold-Harmless Hold-Harmless Hold-Harmless Forward-Looking
South Carolina	\$ 4.62	\$ 109	\$ 4.33	\$ 102	\$ 4.33	\$ 102	\$ 1.35	\$ 32	\$ 4.33	\$ 102	
South Dakota	\$ 18.50	\$ 93	\$ 2.94	\$ 15	\$ 2.94	\$ 15	\$ 1.24	\$ 8	\$ 2.94	\$ 15	
Tennessee	\$ 3.64	\$ 134	\$ -	\$ -	\$ -	\$ -	\$ 0.21	\$ 8	\$ 0.21	\$ 8	
Texas	\$ 0.29	\$ 37	\$ 1.06	\$ 136	\$ 0.29	\$ 37	\$ 0.71	\$ 90	\$ 0.71	\$ 90	
Utah	\$ 1.25	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ 0.45	\$ 5	\$ 0.45	\$ 5	Hold-Harmless
Vermont	\$ 7.89	\$ 35	\$ 9.53	\$ 43	\$ 7.89	\$ 35	\$ 1.77	\$ 8	\$ 7.89	\$ 35	Forward-Looking
Virginia	\$ 0.37	\$ 18	\$ -	\$ -	\$ -	\$ -	\$ 0.11	\$ 5	\$ 0.11	\$ 5	Hold-Harmless
Washington	\$ -	\$ -	\$ 0.66	\$ 26	\$ -	\$ -	\$ 0.71	\$ 28	\$ 0.71	\$ 28	Hold-Harmless
West Virginia	\$ 11.17	\$ 123	\$ 5.09	\$ 56	\$ 5.09	\$ 56	\$ 1.81	\$ 20	\$ 5.09	\$ 56	Embedded
Wisconsin	\$ 2.29	\$ 84	\$ -	\$ -	\$ -	\$ -	\$ 0.56	\$ 21	\$ 0.56	\$ 21	Hold-Harmless
Wyoming	\$ 19.41	\$ 64	\$ 10.23	\$ 33	\$ 10.23	\$ 33	\$ 3.33	\$ 11	\$ 10.23	\$ 33	Embedded
Total:		\$ 3,123		\$ 1,780		\$ 1,265		\$ 899		\$ 1,570	
Maximum Value	\$ 19.41		\$ 10.23		\$ 10.23		\$ 4.21		\$ 10.23		
Minimum Value	\$ -		\$ -		\$ -		\$ -		\$ -		

Number of states under:	
- Forward-Looking Cost	5
- Embedded Cost	17
- Hold-Harmless	22
- No Support	6

01/10/98

This Plan = 2.40%
ECC Plan = 3.01%

	This Plan Compared to No Federal Program					This Plan Compared to FCC's May 8 Plan							
	Federal Support	Interstate Retail Revenue	Payment Into Federal Fund	Net Gain (or Loss)		Fed'l Support to Intra. Juris.			Payment into Federal Fund			Net Gain (Loss)	
				Annual Total	per line per mo.	This Plan Total	FCC Plan Total	Gain or Loss	This Plan Total	FCC Plan Total	Gain or Loss	Amount	per line per mo.
Alabama	\$30	\$868	\$21	\$0 33	\$9	\$30	\$0	\$30	\$21	\$26	\$5	\$35	\$1 30
Arizona	\$21	\$1 232	\$30	(\$0 31)	(\$9)	\$21	\$0	\$21	\$30	\$37	\$7	\$28	\$0 37
Arkansas	\$36	\$526	\$13	\$5 46	\$83	\$36	\$0	\$36	\$13	\$16	\$3	\$39	\$6 49
California	\$38	\$6 322	\$152	(\$0 47)	(\$114)	\$38	\$0	\$38	\$152	\$190	\$38	\$76	\$0 31
Colorado	\$33	\$1 236	\$30	\$0 12	\$3	\$33	\$0	\$33	\$30	\$37	\$7	\$41	\$1 42
Connecticut	\$0	\$1 082	\$26	(\$1 06)	(\$26)	\$0	\$0	\$0	\$26	\$33	\$7	\$7	\$0 27
Delaware	\$0	\$237	\$6	(\$0 96)	(\$6)	\$0	\$0	\$0	\$6	\$7	\$1	\$1	\$0 24
District of Columbia	\$0	\$372	\$9	(\$0 81)	(\$9)	\$0	\$0	\$0	\$9	\$11	\$2	\$2	\$0 20
Florida	\$28	\$4 099	\$99	(\$0 62)	(\$70)	\$28	\$0	\$28	\$99	\$123	\$25	\$53	\$0 47
Georgia	\$116	\$2 085	\$50	\$1 29	\$66	\$116	\$0	\$116	\$50	\$63	\$13	\$129	\$2 52
Hawaii	\$0	\$269	\$6	(\$0 78)	(\$6)	\$0	\$0	\$0	\$6	\$8	\$2	\$2	\$0 20
Idaho	\$27	\$321	\$8	\$2 53	\$19	\$27	\$0	\$27	\$8	\$10	\$2	\$29	\$3 90
Illinois	\$7	\$2 701	\$65	(\$0 64)	(\$58)	\$7	\$0	\$7	\$65	\$81	\$16	\$23	\$0 26
Indiana	\$5	\$1 177	\$28	(\$0 50)	(\$23)	\$5	\$0	\$5	\$28	\$35	\$7	\$12	\$0 32
Iowa	\$4	\$629	\$15	(\$0 62)	(\$11)	\$4	\$0	\$4	\$15	\$19	\$4	\$8	\$0 41
Kansas	\$58	\$629	\$15	\$2 45	\$43	\$58	\$0	\$58	\$15	\$19	\$4	\$62	\$3 52
Kentucky	\$71	\$892	\$21	\$2 12	\$50	\$71	\$0	\$71	\$21	\$27	\$5	\$76	\$3 27
Louisiana	\$65	\$871	\$21	\$1 60	\$44	\$65	\$0	\$65	\$21	\$26	\$5	\$70	\$2 55
Maine	\$49	\$302	\$7	\$4 62	\$42	\$49	\$0	\$49	\$7	\$9	\$2	\$51	\$5 62
Maryland	\$0	\$1 414	\$34	(\$0 86)	(\$34)	\$0	\$0	\$0	\$34	\$43	\$9	\$9	\$0 22
Massachusetts	\$0	\$1 804	\$43	(\$0 87)	(\$43)	\$0	\$0	\$0	\$43	\$54	\$11	\$11	\$0 22
Michigan	\$20	\$1 776	\$43	(\$0 32)	(\$23)	\$20	\$0	\$20	\$43	\$53	\$11	\$31	\$0 44
Minnesota	\$12	\$1 075	\$26	(\$0 44)	(\$14)	\$12	\$0	\$12	\$26	\$32	\$6	\$18	\$0 55
Mississippi	\$105	\$529	\$13	\$6 15	\$92	\$105	\$0	\$105	\$13	\$16	\$3	\$108	\$7 21
Missouri	\$34	\$1 207	\$29	\$0 14	\$5	\$34	\$0	\$34	\$29	\$36	\$7	\$41	\$1 13
Montana	\$45	\$239	\$6	\$6 89	\$40	\$45	\$0	\$45	\$6	\$7	\$1	\$47	\$8 14
Nebraska	\$35	\$400	\$10	\$2 19	\$25	\$35	\$0	\$35	\$10	\$12	\$2	\$37	\$3 24
Nevada	\$7	\$1 710	\$41	(\$2 76)	(\$34)	\$7	\$0	\$7	\$41	\$51	\$10	\$17	\$1 36
New Hampshire	\$23	\$421	\$10	\$1 49	\$13	\$23	\$0	\$23	\$10	\$13	\$3	\$26	\$2 90
New Jersey	\$1	\$2 844	\$68	(\$0 97)	(\$87)	\$1	\$0	\$1	\$68	\$86	\$17	\$18	\$0 27
New Mexico	\$52	\$448	\$11	\$4 05	\$41	\$52	\$0	\$52	\$11	\$13	\$3	\$54	\$5 38
New York	\$22	\$4 964	\$119	(\$0 68)	(\$97)	\$22	\$0	\$22	\$119	\$149	\$30	\$52	\$0 36
North Carolina	\$70	\$1 781	\$43	\$0 54	\$27	\$70	\$0	\$70	\$43	\$54	\$11	\$81	\$1 60
North Dakota	\$12	\$177	\$4	\$1 56	\$8	\$12	\$0	\$12	\$4	\$5	\$1	\$13	\$2 54
Ohio	\$5	\$2 391	\$58	(\$0 68)	(\$53)	\$5	\$0	\$5	\$58	\$72	\$14	\$19	\$0 25
Oklahoma	\$43	\$725	\$17	\$1 17	\$25	\$43	\$0	\$43	\$17	\$22	\$4	\$47	\$2 18
Oregon	\$34	\$820	\$20	\$0 65	\$15	\$34	\$0	\$34	\$20	\$25	\$5	\$39	\$1 17
Pennsylvania	\$4	\$2 831	\$68	(\$0 71)	(\$64)	\$4	\$0	\$4	\$68	\$85	\$17	\$21	\$0 23
Rhode Island	\$0	\$289	\$7	(\$0 95)	(\$7)	\$0	\$0	\$0	\$7	\$9	\$2	\$2	\$0 24
South Carolina	\$102	\$893	\$21	\$3 42	\$80	\$102	\$0	\$102	\$21	\$27	\$5	\$107	\$4 56
South Dakota	\$15	\$192	\$5	\$2 01	\$10	\$15	\$0	\$15	\$5	\$6	\$1	\$16	\$3 17
Tennessee	\$8	\$1 257	\$30	(\$0 61)	(\$23)	\$8	\$0	\$8	\$30	\$38	\$8	\$15	\$0 41
Texas	\$90	\$3 743	\$90	\$0 00	\$0	\$90	\$0	\$90	\$90	\$113	\$23	\$113	\$0 89
Utah	\$5	\$457	\$11	(\$0 48)	(\$6)	\$5	\$0	\$5	\$11	\$14	\$3	\$8	\$0 69
Vermont	\$35	\$199	\$5	\$6 82	\$31	\$35	\$0	\$35	\$5	\$6	\$1	\$37	\$8 15
Virginia	\$5	\$1 871	\$45	(\$0 80)	(\$40)	\$5	\$0	\$5	\$45	\$56	\$11	\$17	\$0 34
Washington	\$28	\$1 416	\$34	(\$0 16)	(\$6)	\$28	\$0	\$28	\$34	\$43	\$9	\$36	\$0 93
West Virginia	\$56	\$384	\$9	\$4 25	\$47	\$56	\$0	\$56	\$9	\$12	\$2	\$58	\$5 30
Wisconsin	\$21	\$1 041	\$25	(\$0 11)	(\$4)	\$21	\$0	\$21	\$25	\$31	\$6	\$27	\$0 73
Wyoming	\$33	\$159	\$4	\$9 07	\$30	\$33	\$0	\$33	\$4	\$5	\$1	\$34	\$10 53
Total	\$1 570	\$65 305	\$1 570	\$0	\$0	\$1 570	\$0	\$1 570	\$1 570	\$1 964	\$394	\$1 964	
Maximum Value				\$9 07									\$10 53
Minimum Value				(\$2 76)									\$0 29

High Cost Modeling Project
Federal Support to Intrastate Jurisdiction
Block Grant to State - Part 3 - Data Listing

1/10/98 17 02

	Forward-Looking Costs - - Blended Cost Model			Embedded Costs			Hold - Harmless Base				Revenue Bases	
	Access Lines	Average Cost		Access Lines	Average Cost		DEM Weighting 1997	Projected USF 1997	Hold- Harmless *		Interstate Retail Revenue	Intrastate Retail Revenue
		Annual Amount	per line per month		Annual Amount	per line per month			Annual Amount	per line per month		
		(millions)	(\$ / l / mo)		(millions)	(\$ / l / mo)			(millions)	(\$ / l / mo)		
Alabama	2,249,642	\$ 1,011	\$ 37.43	2,371,617	\$ 1,031	\$ 36.23	\$ 3.3	\$ 26.5	\$ 30	\$ 1.05	\$ 568	\$ 1,500
Arizona	2,415,476	\$ 837	\$ 28.87	2,620,101	\$ 1,152	\$ 36.63	\$ 4.3	\$ 16.3	\$ 21	\$ 0.66	\$ 1,232	\$ 1,225
Arkansas	1,270,190	\$ 644	\$ 42.25	1,357,264	\$ 716	\$ 43.96	\$ 5.2	\$ 44.5	\$ 50	\$ 3.05	\$ 526	\$ 903
California	20,199,351	\$ 5,318	\$ 21.94	21,707,375	\$ 7,528	\$ 28.30	\$ 4.4	\$ 33.7	\$ 38	\$ 0.15	\$ 6,322	\$ 13,488
Colorado	2,380,232	\$ 848	\$ 29.67	2,548,940	\$ 1,223	\$ 39.97	\$ 3.2	\$ 22.7	\$ 26	\$ 0.85	\$ 1,236	\$ 1,465
Connecticut	2,041,315	\$ 627	\$ 25.60	2,107,345	\$ 921	\$ 36.42	\$ -	\$ -	\$ -	\$ -	\$ 1,082	\$ 1,406
Delaware	497,697	\$ 150	\$ 25.08	542,120	\$ 171	\$ 26.30	\$ -	\$ -	\$ -	\$ -	\$ 237	\$ 198
District of Columbia	913,735	\$ 179	\$ 16.36	972,665	\$ 229	\$ 19.66	\$ -	\$ -	\$ -	\$ -	\$ 372	\$ 409
Florida	9,490,147	\$ 2,820	\$ 24.77	10,304,031	\$ 4,329	\$ 35.01	\$ 2.6	\$ 25.8	\$ 28	\$ 0.23	\$ 4,099	\$ 5,860
Georgia	4,251,471	\$ 1,590	\$ 31.16	4,691,137	\$ 2,211	\$ 39.28	\$ 6.8	\$ 34.4	\$ 41	\$ 0.73	\$ 2,085	\$ 2,884
Hawaii	690,702	\$ 205	\$ 24.69	776,571	\$ 382	\$ 40.95	\$ -	\$ -	\$ -	\$ -	\$ 269	\$ 474
Idaho	633,471	\$ 314	\$ 41.35	668,899	\$ 324	\$ 40.31	\$ 3.8	\$ 19.9	\$ 24	\$ 2.96	\$ 321	\$ 329
Illinois	7,556,209	\$ 2,236	\$ 24.66	8,053,516	\$ 2,730	\$ 28.25	\$ 2.7	\$ 4.2	\$ 7	\$ 0.07	\$ 2,701	\$ 4,408
Indiana	3,242,405	\$ 1,174	\$ 30.18	3,457,575	\$ 1,324	\$ 31.91	\$ 2.9	\$ 2.4	\$ 5	\$ 0.13	\$ 1,177	\$ 2,070
Iowa	1,528,944	\$ 699	\$ 38.12	1,605,947	\$ 662	\$ 34.38	\$ 1.1	\$ 2.7	\$ 4	\$ 0.20	\$ 629	\$ 908
Kansas	1,468,538	\$ 656	\$ 37.28	1,573,136	\$ 755	\$ 39.99	\$ 7.9	\$ 33.2	\$ 41	\$ 2.18	\$ 629	\$ 904
Kentucky	1,947,323	\$ 885	\$ 37.87	2,049,601	\$ 975	\$ 39.63	\$ 0.4	\$ 11.9	\$ 12	\$ 0.50	\$ 892	\$ 1,381
Louisiana	2,288,139	\$ 859	\$ 31.27	2,407,909	\$ 1,148	\$ 39.75	\$ 4.9	\$ 41.0	\$ 46	\$ 1.59	\$ 871	\$ 1,552
Maine	755,744	\$ 354	\$ 39.03	808,442	\$ 414	\$ 42.81	\$ 3.3	\$ 6.2	\$ 10	\$ 0.99	\$ 302	\$ 439
Maryland	3,292,070	\$ 947	\$ 23.97	3,528,611	\$ 1,252	\$ 29.57	\$ -	\$ -	\$ -	\$ -	\$ 1,414	\$ 1,942
Massachusetts	4,148,326	\$ 1,134	\$ 22.78	4,528,072	\$ 1,780	\$ 32.76	\$ -	\$ 0.0	\$ 0	\$ 0.00	\$ 1,804	\$ 2,594
Michigan	5,860,939	\$ 1,963	\$ 27.90	6,260,158	\$ 2,263	\$ 30.12	\$ 6.1	\$ 13.8	\$ 20	\$ 0.27	\$ 1,778	\$ 3,949
Minnesota	2,720,511	\$ 1,061	\$ 32.50	2,889,066	\$ 1,134	\$ 32.71	\$ 4.7	\$ 6.8	\$ 12	\$ 0.33	\$ 1,075	\$ 1,557
Mississippi	1,245,532	\$ 625	\$ 41.81	1,307,345	\$ 705	\$ 44.92	\$ 1.9	\$ 15.9	\$ 18	\$ 1.14	\$ 529	\$ 872
Missouri	3,052,815	\$ 1,195	\$ 32.61	3,318,033	\$ 1,450	\$ 36.44	\$ 4.7	\$ 29.5	\$ 34	\$ 0.86	\$ 1,207	\$ 1,869
Montana	480,433	\$ 310	\$ 53.79	507,239	\$ 281	\$ 46.10	\$ 5.8	\$ 18.4	\$ 24	\$ 3.98	\$ 238	\$ 304
Nebraska	953,532	\$ 459	\$ 40.10	1,008,883	\$ 480	\$ 39.63	\$ 5.5	\$ 6.2	\$ 12	\$ 0.97	\$ 400	\$ 588
Nevada	1,040,173	\$ 344	\$ 27.53	1,172,275	\$ 389	\$ 27.58	\$ 4.3	\$ 2.4	\$ 7	\$ 0.47	\$ 1,710	\$ 1,113
New Hampshire	744,121	\$ 282	\$ 31.62	802,056	\$ 384	\$ 39.91	\$ 3.7	\$ 4.8	\$ 9	\$ 0.88	\$ 421	\$ 479
New Jersey	5,785,830	\$ 1,452	\$ 20.92	6,269,389	\$ 2,075	\$ 27.58	\$ 0.6	\$ 0.7	\$ 1	\$ 0.02	\$ 2,844	\$ 3,345
New Mexico	840,662	\$ 399	\$ 39.56	889,682	\$ 453	\$ 42.40	\$ 6.2	\$ 20.0	\$ 26	\$ 2.45	\$ 448	\$ 513
New York	11,985,732	\$ 3,279	\$ 22.80	12,597,063	\$ 5,679	\$ 37.57	\$ 11.4	\$ 10.8	\$ 22	\$ 0.15	\$ 4,964	\$ 8,298
North Carolina	4,220,030	\$ 1,659	\$ 32.75	4,619,559	\$ 2,075	\$ 37.43	\$ 1.7	\$ 21.9	\$ 24	\$ 0.43	\$ 1,781	\$ 2,932
North Dakota	411,747	\$ 260	\$ 52.58	411,774	\$ 192	\$ 38.81	\$ 3.8	\$ 5.2	\$ 9	\$ 1.83	\$ 177	\$ 233
Ohio	6,338,646	\$ 2,100	\$ 27.60	6,767,520	\$ 2,606	\$ 32.09	\$ 0.8	\$ 4.0	\$ 5	\$ 0.06	\$ 2,391	\$ 4,791
Oklahoma	1,794,810	\$ 793	\$ 36.82	1,929,137	\$ 885	\$ 38.22	\$ 8.0	\$ 28.1	\$ 36	\$ 1.56	\$ 725	\$ 1,033
Oregon	1,849,617	\$ 728	\$ 32.82	1,990,447	\$ 899	\$ 37.54	\$ 6.3	\$ 14.4	\$ 21	\$ 0.87	\$ 820	\$ 1,051
Pennsylvania	7,569,252	\$ 2,401	\$ 26.43	8,069,739	\$ 2,759	\$ 28.50	\$ 2.6	\$ 1.3	\$ 4	\$ 0.04	\$ 2,831	\$ 4,111
Rhode Island	608,876	\$ 171	\$ 23.46	660,255	\$ 261	\$ 32.36	\$ -	\$ -	\$ -	\$ -	\$ 289	\$ 311
South Carolina	1,961,543	\$ 807	\$ 34.29	2,108,568	\$ 1,046	\$ 41.35	\$ 6.7	\$ 25.0	\$ 32	\$ 1.25	\$ 893	\$ 1,429
South Dakota	415,693	\$ 264	\$ 52.92	411,249	\$ 195	\$ 39.50	\$ 3.2	\$ 3.0	\$ 6	\$ 1.25	\$ 192	\$ 221
Tennessee	3,061,932	\$ 1,212	\$ 32.97	3,266,094	\$ 1,388	\$ 35.42	\$ 2.4	\$ 5.2	\$ 8	\$ 0.20	\$ 1,257	\$ 1,817
Texas	10,635,340	\$ 3,639	\$ 28.51	11,648,036	\$ 5,171	\$ 37.00	\$ 12.9	\$ 77.5	\$ 90	\$ 0.65	\$ 3,743	\$ 6,873
Utah	976,743	\$ 349	\$ 29.79	1,063,247	\$ 437	\$ 34.24	\$ 2.2	\$ 3.1	\$ 5	\$ 0.42	\$ 457	\$ 505
Vermont	373,218	\$ 173	\$ 38.64	388,427	\$ 230	\$ 48.29	\$ 2.2	\$ 5.7	\$ 8	\$ 1.67	\$ 190	\$ 193
Virginia	4,109,142	\$ 1,411	\$ 28.62	4,458,171	\$ 1,690	\$ 31.61	\$ 0.9	\$ 4.5	\$ 5	\$ 0.10	\$ 1,871	\$ 2,473
Washington	3,250,647	\$ 1,090	\$ 27.94	3,479,286	\$ 1,523	\$ 36.47	\$ 3.2	\$ 24.6	\$ 28	\$ 0.67	\$ 1,416	\$ 2,004
West Virginia	916,662	\$ 473	\$ 43.01	973,414	\$ 495	\$ 42.37	\$ 1.5	\$ 18.4	\$ 20	\$ 1.71	\$ 384	\$ 606
Wisconsin	3,078,873	\$ 1,152	\$ 31.17	3,281,583	\$ 1,178	\$ 29.92	\$ 9.5	\$ 11.3	\$ 21	\$ 0.53	\$ 1,041	\$ 1,856
Wyoming	272,670	\$ 177	\$ 54.01	284,920	\$ 168	\$ 49.23	\$ 2.6	\$ 8.3	\$ 11	\$ 3.19	\$ 158	\$ 152
Total	159,815,046	\$ 53,712		171,513,489	\$ 69,746		\$ 182.4	\$ 716.7	\$ 899.0		\$ 65,305	\$ 101,110
Maximum Value			\$ 54.01			\$ 49.23						
Minimum Value			\$ 16.36			\$ 19.58						
National Average			\$ 28.12			\$ 33.88						

* Calculation uses embedded line counts, not forward-looking counts.

High Cost Modeling Project
Preliminary Data Sheet - Embedded Cost Data

1/10/98 17.02

	Average Loops	Average Cost per Loop				
		Loop Cost	Central Office Cost	Trunking Cost	Total Cost	Total Cost
		(annual)	(annual)	(annual)	(annual)	(monthly)
Alabama	2,371,617	\$ 272.59	\$ 132.65	\$ 29.55	\$ 434.79	\$ 36.23
Arizona	2,620,101	\$ 308.94	\$ 111.73	\$ 18.93	\$ 439.60	\$ 36.63
Arkansas	1,357,264	\$ 369.26	\$ 119.60	\$ 38.71	\$ 527.57	\$ 43.96
California	21,707,375	\$ 190.65	\$ 108.04	\$ 48.10	\$ 346.79	\$ 28.90
Colorado	2,548,940	\$ 316.90	\$ 129.44	\$ 33.27	\$ 479.61	\$ 39.97
Connecticut	2,107,345	\$ 227.49	\$ 155.27	\$ 54.29	\$ 437.05	\$ 36.42
Delaware	542,120	\$ 205.62	\$ 80.83	\$ 29.10	\$ 315.55	\$ 26.30
District of Columbia	972,665	\$ 65.68	\$ 143.11	\$ 27.08	\$ 235.88	\$ 19.66
Florida	10,304,031	\$ 286.87	\$ 110.92	\$ 22.32	\$ 420.10	\$ 35.01
Georgia	4,691,137	\$ 319.96	\$ 118.71	\$ 32.64	\$ 471.31	\$ 39.28
Hawaii	776,571	\$ 255.89	\$ 173.83	\$ 61.72	\$ 491.44	\$ 40.95
Idaho	668,899	\$ 338.19	\$ 114.50	\$ 31.00	\$ 483.70	\$ 40.31
Illinois	8,053,516	\$ 188.46	\$ 111.89	\$ 38.62	\$ 338.97	\$ 28.25
Indiana	3,457,575	\$ 227.46	\$ 122.48	\$ 32.96	\$ 382.90	\$ 31.91
Iowa	1,605,947	\$ 238.49	\$ 135.75	\$ 38.28	\$ 412.52	\$ 34.38
Kansas	1,573,136	\$ 305.80	\$ 125.86	\$ 48.22	\$ 479.88	\$ 39.99
Kentucky	2,049,601	\$ 310.10	\$ 127.79	\$ 37.73	\$ 475.62	\$ 39.63
Louisiana	2,407,909	\$ 319.30	\$ 121.13	\$ 36.53	\$ 476.96	\$ 39.75
Maine	806,442	\$ 299.41	\$ 142.46	\$ 71.89	\$ 513.76	\$ 42.81
Maryland	3,528,611	\$ 213.87	\$ 111.82	\$ 29.16	\$ 354.85	\$ 29.57
Massachusetts	4,528,072	\$ 188.13	\$ 126.78	\$ 78.19	\$ 393.11	\$ 32.76
Michigan	6,260,158	\$ 213.15	\$ 97.58	\$ 50.75	\$ 361.47	\$ 30.12
Minnesota	2,889,066	\$ 241.63	\$ 127.02	\$ 23.91	\$ 392.56	\$ 32.71
Mississippi	1,307,345	\$ 366.53	\$ 131.18	\$ 41.28	\$ 538.98	\$ 44.92
Missouri	3,316,033	\$ 279.08	\$ 124.84	\$ 33.40	\$ 437.32	\$ 36.44
Montana	507,239	\$ 376.18	\$ 127.09	\$ 49.99	\$ 553.25	\$ 46.10
Nebraska	1,008,883	\$ 263.56	\$ 170.85	\$ 41.11	\$ 475.52	\$ 39.63
Nevada	1,172,275	\$ 185.11	\$ 115.93	\$ 31.07	\$ 332.11	\$ 27.68
New Hampshire	802,056	\$ 300.01	\$ 123.84	\$ 55.08	\$ 478.92	\$ 39.91
New Jersey	6,269,389	\$ 189.48	\$ 100.91	\$ 40.52	\$ 330.91	\$ 27.58
New Mexico	889,682	\$ 348.19	\$ 130.89	\$ 29.76	\$ 508.84	\$ 42.40
New York	12,597,063	\$ 225.90	\$ 145.58	\$ 79.33	\$ 450.80	\$ 37.57
North Carolina	4,619,559	\$ 296.55	\$ 123.12	\$ 29.49	\$ 449.16	\$ 37.43
North Dakota	411,774	\$ 289.59	\$ 139.99	\$ 36.18	\$ 465.76	\$ 38.81
Ohio	6,767,520	\$ 216.70	\$ 121.23	\$ 47.12	\$ 385.05	\$ 32.08
Oklahoma	1,929,137	\$ 294.17	\$ 123.23	\$ 41.20	\$ 458.61	\$ 38.22
Oregon	1,990,447	\$ 295.32	\$ 122.06	\$ 34.29	\$ 451.67	\$ 37.64
Pennsylvania	8,069,739	\$ 214.94	\$ 96.42	\$ 30.59	\$ 341.96	\$ 28.50
Rhode Island	660,255	\$ 220.05	\$ 120.80	\$ 54.54	\$ 395.39	\$ 32.95
South Carolina	2,108,568	\$ 337.79	\$ 129.56	\$ 28.91	\$ 496.25	\$ 41.35
South Dakota	411,249	\$ 283.56	\$ 152.50	\$ 37.98	\$ 474.04	\$ 39.50
Tennessee	3,266,094	\$ 279.18	\$ 115.32	\$ 30.50	\$ 425.00	\$ 35.42
Texas	11,646,036	\$ 278.34	\$ 129.11	\$ 36.57	\$ 444.02	\$ 37.00
Utah	1,063,247	\$ 259.74	\$ 123.27	\$ 27.92	\$ 410.93	\$ 34.24
Vermont	396,427	\$ 352.37	\$ 155.78	\$ 71.28	\$ 579.43	\$ 48.29
Virginia	4,456,171	\$ 240.93	\$ 106.38	\$ 31.95	\$ 379.26	\$ 31.61
Washington	3,479,286	\$ 272.46	\$ 132.00	\$ 33.13	\$ 437.59	\$ 36.47
West Virginia	973,414	\$ 334.81	\$ 129.86	\$ 43.82	\$ 508.49	\$ 42.37
Wisconsin	3,281,583	\$ 217.59	\$ 108.40	\$ 33.04	\$ 359.03	\$ 29.92
Wyoming	284,920	\$ 436.01	\$ 94.55	\$ 60.17	\$ 590.74	\$ 49.23
Total or Weighted Average	171,513,489	\$ 245.64	\$ 119.52	\$ 41.50	\$ 406.65	\$ 33.89
Alaska	407,089	\$ 382.76	\$ 183.54	\$ 46.35	\$ 612.65	\$ 51.05
Micronesia	19,188	\$ 558.97	\$ 279.40	\$ 139.74	\$ 978.10	\$ 81.51
Puerto Rico	1,227,092	\$ 441.18	\$ 129.15	\$ 50.82	\$ 621.15	\$ 51.76
Virgin Islands	60,066	\$ 591.92	\$ 143.03	\$ 42.52	\$ 777.47	\$ 64.79
Total or Weighted Average	173,226,944	\$ 247.50	\$ 119.76	\$ 41.58	\$ 408.85	\$ 34.07

Bell Atlantic
185 Franklin Street, Room 1403, Boston, MA 02110
Tel (617) 743-5769
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Donald W. Boecke
General Counsel - Maine

Trina



January 7, 1998

BY OVERNIGHT MESSENGER

Trina Bragdon, Hearing Examiner
State of Maine, Public Utilities Commission
242 State Street, State House Station 18
Augusta, Maine 04333-0018

Re: Investigation of Total Element Long-Run Incremental Cost (TELRIC)
Studies and Pricing of Unbundled Network Elements, Docket No. 97-505

Dear Ms. Bragdon:

Enclosed for filing with the Commission in the above-referenced proceeding is an original and two copies of the New England Telephone and Telegraph Company d/b/a Bell Atlantic's response to the question included in the Hearing Examiner's Procedural Order dated December 8, 1997.

Please return a date-stamped copy of this letter to indicate the filing. Thank you for your attention to this matter.

Very truly yours,

Donald W. Boecke
Donald W. Boecke *by*
jo

cc: All Parties
Dennis Keschl
David Gabel

RECEIVED
JAN 12 1998
PUBLIC
UTILITY
COMMISSION

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY
d/b/a Bell Atlantic

State of Maine

Docket No. 97-505

Respondent: Kenneth P. Helgeson
Title: Director

REQUEST: Procedural Order Dated December 8, 1997

Dated: January 6, 1998

Item: PO #1 The average, standard deviation, and distribution of loop lengths for each wire center and density zone, based upon 100% of BA's Maine loops, with supporting testimony.

Reply: Tables A and B, below, provide a summary of loops developed from an inventory of all assigned loops in Maine, as requested at the Technical Conference held on December 2, 1997. Table A shows the number of assigned lines by overall length (feeder and distribution) for each of the three density zones. Table B provides, by wire center, the average feeder length and the average distribution length for all assigned lines. A comparison of the "census study" and the previously drawn random sample (Table C) shows that the difference in average loop lengths between the two studies is relatively small. Thus, rerunning the link study using the census data would result in a correspondingly small change in the link recurring costs previously filed. However, the distribution data presented in Table A provides some meaningful information that could result in the need to reengineer the link design.

The Company plans to develop a revised link design using the census data, and to subsequently refile the link study with supporting documentation.

NET# 426

Table A

KFT	Urban		Suburban		Rural		State	
	Assigned Lines	%	Assigned Lines	%	Assigned Lines	%	Assigned Lines	%
≤1.0	264	0.42%	3,408	1.23%	1,441	0.34%	5,113	0.67%
≤2.0	5,279	8.35%	14,518	5.25%	11,817	2.78%	31,614	4.14%
≤3.0	11,490	18.18%	29,150	10.55%	35,520	8.37%	76,160	9.97%
≤4.0	18,171	28.75%	45,767	16.56%	59,419	14.00%	123,357	16.14%
≤5.0	25,242	39.94%	60,048	21.73%	85,230	20.07%	170,520	22.31%
≤6.0	31,529	49.88%	80,987	29.30%	116,884	27.53%	229,400	30.02%
≤7.0	34,954	55.30%	100,097	36.22%	148,457	34.97%	283,508	37.10%
≤8.0	38,911	61.56%	118,106	42.73%	167,227	39.39%	324,244	42.43%
≤9.0	44,721	70.76%	129,540	46.87%	179,001	42.16%	353,262	46.23%
≤10.0	44,721	70.76%	151,047	54.65%	187,846	44.24%	383,614	50.20%
≤12.0	49,513	78.34%	170,938	61.85%	206,206	48.57%	426,657	55.83%
≤14.0	53,247	84.25%	189,509	68.56%	231,582	54.55%	474,338	62.07%
≤16.0	54,509	86.24%	210,411	76.13%	247,632	58.33%	512,552	67.07%
≤18.0	55,484	87.79%	215,702	78.04%	259,337	61.08%	530,523	69.43%
≤20.0	56,896	90.02%	222,627	80.55%	269,739	63.53%	549,262	71.88%
≤25.0	61,196	96.82%	244,069	88.30%	306,864	72.28%	612,129	80.10%
≤30.0	63,204	100.00%	256,356	92.75%	336,881	79.35%	656,441	85.90%
≤35.0	63,204	100.00%	264,858	95.83%	362,944	85.49%	691,006	90.43%
≤40.0	63,204	100.00%	268,878	97.28%	379,191	89.31%	711,273	93.08%
≤45.0	63,204	100.00%	271,933	98.39%	391,189	92.14%	726,326	95.05%
≤50.0	63,204	100.00%	274,287	99.24%	400,507	94.33%	737,998	96.58%
≤55.0	63,204	100.00%	275,209	99.57%	408,979	96.33%	747,392	97.81%
≤60.0	63,204	100.00%	275,740	99.76%	414,487	97.63%	753,431	98.60%
≤65.0	63,204	100.00%	275,861	99.81%	417,968	98.45%	757,033	99.07%
≤70.0	63,204	100.00%	276,395	100.00%	419,817	98.88%	759,416	99.38%
≤75.0	63,204	100.00%	276,395	100.00%	421,686	99.32%	761,285	99.62%
≤80.0	63,204	100.00%	276,395	100.00%	422,252	99.46%	761,851	99.70%
≤85.0	63,204	100.00%	276,395	100.00%	422,667	99.55%	762,266	99.75%
≤90.0	63,204	100.00%	276,395	100.00%	423,374	99.72%	762,973	99.84%
≤95.0	63,204	100.00%	276,395	100.00%	423,521	99.76%	763,120	99.86%
≤100.0	63,204	100.00%	276,395	100.00%	423,824	99.83%	763,423	99.90%
≤110.0	63,204	100.00%	276,395	100.00%	424,200	99.91%	763,799	99.95%
≤120.0	63,204	100.00%	276,395	100.00%	424,410	99.96%	764,009	99.98%
≤130.0	63,204	100.00%	276,395	100.00%	424,525	99.99%	764,124	100.00%
≤140.0	63,204	100.00%	276,395	100.00%	424,561	100.00%	764,160	100.00%
Average Length	8.27		12.50		18.19			
Standard Deviation	5.85		10.28		16.51			

Table B

Wire Center	CLLI	Feeder Average Length (KFT)	Feeder Standard Deviation	Distribution Average Length (KFT)	Distribution Standard Deviation
Ashland	ASLDMEMA	25.49	26.92	5.27	0.86
Augusta	AGSTMEST	10.44	9.04	2.47	1.65
Bangor	BNGRMEPA	9.93	10.12	2.41	1.52
Bar Harbor	BRHRMEMD	11.02	14.62	3.47	1.91
Bath	BATHMEHI	8.90	9.06	3.63	2.21
Belfast	BLFSMEWA	12.87	14.17	3.66	1.71
Belgrade	BLGRMEMA	18.35	15.89	5.75	0.52
Biddeford	BDFRMEJE	10.52	10.09	3.24	1.94
Bingham	BNHMMEME	16.44	29.21	6.08	2.02
Blue Hill	BLHLMPL	8.35	9.27	5.64	0.69
Boothbay Harbor	BTHRMEEA	11.74	9.93	4.27	1.69
Bowdoinham	BWHMMEMA	13.35	12.11	5.19	1.15
Bradford	BRFRMEYA	19.41	12.19	5.67	0.85
Brewer	BREWMECH	8.61	7.46	2.89	1.64
Bridgton	BRTNMEFI	15.37	13.46	4.42	1.72
Brownville	BWVLMEBP	20.31	17.70	5.98	0.51
Brunswick	BRWKMEEV	12.55	11.50	4.08	2.33
Bucksport	BCPTMECE	14.24	14.09	5.80	0.93
Calais	CALSMECH	29.34	37.34	3.57	1.90
Camden	CMDNMEEL	6.29	7.22	3.82	1.60
Caribou	CARBMEHI	10.84	12.39	3.47	1.87
Castine	CASTMECO	19.85	21.18	3.75	2.19
Clinton	CLTNMEML	11.70	11.91	4.37	1.50
Columbia	CLMAMEEP	17.92	13.34	5.27	1.34
Corinth	CRNTMEMA	13.87	11.84	4.83	1.07
Cornish	CRNSMEMA	23.01	15.62	6.36	1.89
Cumberland	CMLDMEMA	12.73	8.85	3.88	1.13
Cutler	CTLRMEYA	25.98	25.40	6.97	5.45
Danforth	DNFTMECA	31.15	27.57	5.49	0.97
Dark Harbor	DRHRMEWE	14.94	10.05	5.27	0.90
Deer Isle	DEISMEYA	13.58	11.89	5.33	0.73
Dexter	DXTRMEMA	8.70	11.50	4.60	1.67
Dixfield	DXFDMEDI	14.57	15.85	4.96	2.33
Dover-Foxcroft	DVFXMEMA	14.60	18.20	4.62	2.00
East Millinocket	EMLNMEBI	10.97	14.88	3.86	1.79
Easton	ESTNMEMA	8.13	10.70	5.45	0.73
Eastport	ESPTMEST	14.52	17.78	4.00	1.37
Eddington	EDTNMEEE	24.51	15.98	5.36	1.16
Ellsworth	ELWOMEMA	18.68	18.66	5.92	5.06
Fairfield	FRFDMELA	14.50	14.58	4.64	1.59
Falmouth	FLMOMEDE	6.55	4.82	3.16	1.39
Farmington	FRTNMEHI	16.82	17.24	4.71	2.13
Fort Fairfield	FTFRMEFH	6.90	9.74	4.33	1.71
Franklin	FKLNMEMA	17.99	17.33	5.30	0.90
Freeport	FRPTMECU	10.15	8.38	4.46	1.81
Frenchville	FCVLMESA	23.43	21.94	5.65	0.81

Gardiner	GRNRMEBR	12.11	11.73	3.72	1.83
Georgetown	GRTWMEYA	10.76	6.20	4.08	0.98
Goodwins Mills	GDMLMEDH	9.98	7.16	4.50	0.91
Gorham	GRHMMECH	10.95	10.61	3.84	1.36
Grand Isle	GDISMEMO	25.53	26.06	5.33	0.86
Greenville	GNVLMewe	14.49	21.66	5.41	1.19
Guilford	GUFDMEHI	13.92	13.15	4.42	2.49
Harpswell	HRWLMEYA	10.20	9.69	5.10	0.89
Harrison	HRSNMEYA	22.95	18.21	5.53	1.38
Hermon	HERMMEBI	18.58	15.96	5.04	0.99
Houlton	HLTNMECO	13.26	17.50	3.23	2.17
Jackman	JCMNMEMA	10.29	21.13	4.55	1.37
Jonesport	JNPTMEMT	14.24	11.28	2.90	2.48
Kennebunk	KNBNMEGR	9.45	9.55	3.73	1.41
Kennebunkport	KNPTMESC	7.08	8.15	4.75	0.98
Lewiston	LSTNMEAS	9.45	7.37	2.59	1.70
Limerick	LMRCMEBS	23.41	18.87	5.42	1.11
Limestone 5	LMSTMEMA	7.71	11.82	3.45	1.66
Limestone 8	LMSTMeya	3.90	4.12	4.61	0.63
Lincoln	LNCLMEWB	10.74	10.46	3.40	1.99
Lisbon Falls	LSFLMEAD	12.68	10.22	4.43	1.54
Littleton	LTTNMEYA	15.06	10.54	4.94	0.89
Livermore Falls	LVFLMEUN	14.13	14.65	4.72	1.88
Lubec	LUBCMEMA	17.33	19.08	4.09	1.43
Machias	MCHSMECB	16.87	22.25	4.88	1.72
Madawaska	MDWSMEMA	8.81	16.56	3.30	1.45
Madison	MDSNMEMA	10.21	14.42	3.68	1.53
Maine Mall	SPLDMEMM	3.56	1.95	1.54	0.58
Mars Hill	MRHLMeyO	13.67	14.91	4.44	1.61
Mechanic Falls	MCFLMEPL	5.17	7.39	3.26	1.55
Milbridge	MLBRMEYA	20.64	15.20	5.73	0.62
Millinocket	MLNCMEPE	9.93	17.04	3.69	2.58
Milo	MILOMEEL	13.73	19.81	5.08	1.30
Monroe	MONRMEBE	10.89	7.60	5.34	1.10
Monson	MNSNMEBL	21.03	23.32	4.96	1.77
New Sweden	NWSWMEWE	27.06	18.94	5.52	0.57
Newport	NWPTMEMA	5.93	7.42	4.27	1.40
North Berwick	NBRWMEWE	7.99	8.42	5.26	1.04
North Deering	NDRGMEAU	9.40	6.57	2.19	1.01
North Haven	NHVNMEH	6.70	7.81	4.70	1.18
North Sanford	NSFRMESP	17.27	11.01	5.92	2.26
North Whitefield	NRWFMECM	25.44	14.04	5.92	0.80
Northeast Harbor	NHRBMENH	6.78	4.52	4.00	1.52
Norway	NRWYMEFA	11.19	10.16	3.56	1.76
Oakland	OKLDMEWG	11.01	11.32	4.58	1.20
Old Orchard Beach	OOBHMEPO	4.76	3.11	2.21	0.94
Old Town	OLTWMEBC	12.27	18.07	2.69	1.47
Orono	ORONMEFO	4.33	3.44	2.27	1.10
Orrington	ORTNMECO	14.52	9.27	5.35	0.80
Oxford	OXFRMEHI	11.79	10.05	4.50	1.31
Peaks Island	PKISMEIS	7.14	9.95	4.93	1.71
Pembroke	PMBRMEYA	15.33	12.59	4.76	1.15

Phippsburg	PHBGMESP	15.81	10.25	5.18	0.89
Pittsfield	PTFDMEEA	8.34	11.55	3.54	1.50
Portland	PTLDMEFO	7.36	6.05	1.29	0.95
Pownal	PWNLMEEL	10.32	6.73	4.65	1.32
Presque Isle	PRISMESE	10.64	14.83	3.05	1.95
Princeton	PRTNMEMC	29.12	32.63	5.61	2.00
Rangeley	RNGLMEPL	23.80	24.84	5.77	2.59
Readfield	RDFDMEWI	21.78	17.69	4.88	0.89
Richmond	RCMDMESO	15.03	13.19	5.36	1.44
Rockland	RKLDMELI	10.15	12.71	3.16	1.59
Rockwood	RKWDMEYA	12.30	11.24	4.88	0.51
Rumford	RMFRMEHE	11.46	17.26	3.26	2.01
Sabattus	SBTSMEMP	12.93	9.99	4.77	1.45
Sable Oaks	SPLDMESO	4.29	2.95	2.16	1.00
Sanford	SNFRMECH	14.52	13.64	4.63	3.12
Scarborough	SCBOMEBP	13.68	9.84	2.90	1.42
Searsport	SRPTMEPR	7.14	9.58	4.45	1.21
Sedgwick	SDWKMEYA	18.64	12.16	5.42	1.12
Skowhegan	SKWHMENO	15.25	17.55	4.18	1.70
South Berwick	SBWKMEJE	7.12	7.20	4.75	1.99
South Portland	SPLDMEES	9.16	6.77	2.69	1.79
Southwest Harbor	SWHRMEMA	15.58	15.11	5.37	0.66
Stonington	SGTNMEYA	4.57	5.64	5.55	0.71
Sullivan	SLLVMEYA	16.46	12.16	5.33	0.65
Tenants Harbor	TNHRMEHS	12.01	9.42	5.36	0.52
The Forks	THFRMEBJ	12.79	10.92	5.65	0.77
Thomaston	THMTMEGL	15.57	18.49	4.15	1.83
Van Buren	VNBRMESJ	4.65	8.55	4.71	0.56
Vanceboro*	VNBOMEBC	41.24	14.75	5.99	0.10
Vinal Haven	VNHNMENH	6.43	5.75	3.98	1.18
Waldoboro	WLBOMEMA	19.70	17.57	5.42	0.76
Washburn	WSBNMEMA	9.99	14.70	5.90	1.72
Waterville	WTVLMEAP	8.39	8.73	2.58	1.32
Wells	WLLSMEYA	17.39	11.87	4.12	1.91
Westbrook	WSBKMEAS	6.11	5.75	2.09	1.00
Wilton	WLTOMERC	8.91	8.66	4.74	1.25
Windham	WNHMMEGR	18.19	8.32	4.63	2.45
Winter Harbor	WNHRMENE	20.59	13.76	4.71	1.36
Winterport	WNPTMEOA	13.29	12.51	4.73	1.70
Wiscasset	WSCSMEWA	13.47	12.92	5.89	1.60
Woodland	WLDMEHO	4.37	8.99	3.96	1.82
Yarmouth	YRMOMESO	7.52	10.07	4.39	1.44
York	YORKMELS	11.26	7.26	3.08	1.63

* Vanceboro is a locality of the McAdam New Brunswick exchange

Table C

	Feeder			Distribution		
	Urban	Suburban	Rural	Urban	Suburban	Rural
Census	6.9	9.7	13.8	1.3	2.8	4.4
Sample	7.1	9.6	14.4	1.5	2.6	4.4
Difference	-2.8%	+1.0%	-4.2%	-13%	+7.7%	0%